according to the quarter degree grid approach. Principle Component Analysis ordination was used to analyse the data, which showed a clear grouping of species on family and genus level of the surveyed grids. A total of 877 plant species have been identified so far, including 48 South African endemic, 5 Red Data List, 6 protected tree and 118 problematic taxa. The findings will be combined into a sustainable development framework for the establishment of the Heritage Park. In future studies plant distribution data will be digitised for use in spatial modeling to systematically plan for the protected area and tourism infrastructure development.

doi:10.1016/j.sajb.2010.02.069

Plant communities of the area leased for mining purposes by Impala Platinum, Rustenburg

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Systematic conservation planning provides a useful tool for land-use planning and impact assessment, particularly in the mining industry. A study was therefore done to provide sufficient biodiversity information for the establishment of a conservation plan. The major objective of this study is to collect data of areas with high plant diversity or endemism. This will then be integrated into the conservation plan with the intent to guide Impala Platinum in its future planning of land use practices. The licensed mining area, in the vicinity of Rustenburg, covers 29,334 ha which includes fourteen operational shafts. The area was stratified into three main categories based on landscape types namely: norite koppies, thornveld and rehabilitated areas. Areas of homogenous plant growth were identified in each category by visual observations and the use of aerial photography. The Braun Blanquet approach was used to sample 140 relevés, which were classified into plant communities. Additional software packages were used for capture, processing and presentation of phytosociological data (TURBOVEG) as well as a visual editor for phytosociological tables (MEGATAB). Ordinations were subsequently performed to confirm the communities. This was achieved by using a multivariate analyses computer programme called CANOCO. Six, three and four communities were identified respectively in the norite koppies, rehabilitated areas and thornveld. Specific environmental factors that influence community structure and composition in the norite koppies were found to be aspect and percentage of soil surface rockiness. The soil type proved to be the major determining factor for community structure and composition in the thornveld areas.

doi:10.1016/j.sajb.2010.02.070

Plant diversity in urban domestic gardens along a socio-economic gradient in the Tlokwe Municipal area, North-West Province

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The value of domestic gardens in urban areas is increasingly realised in an era of urbanisation that negatively impacts on native biodiversity. It provides a valuable resource for natural wildlife and also presents the urban public with opportunities to conserve biodiversity and maintain provision of ecosystem services. Including cultural and socioeconomic variables into urban ecological studies, with the use of the gradient approach, can greatly improve the predictive ability of results and aid ecologically sensible management and planning in the urban environment. The plant diversity along a quantified socioeconomic gradient was determined with the use of spatial statistics and ordinations. The steep socioeconomic status (SES) gradient in the study area is the result of high social and cultural heterogeneity and it can be described as high in the eastern and low in the western parts of Tlokwe. Gardens have shown very high gamma-diversity (nearly 850 species), suggesting high species turn-over (beta-diversity). The so-called "luxury concept" was also very clear: gardens in areas of higher SES sustained a much higher plant species richness than its counterparts in areas of lower SES. Also apparent along the gradient is the negative relationship between cultivation of utilitarian plants and SES, indicating the importance of gardens for livelihoods in poorer parts of the community. Through gardening and urban agriculture, urban inhabitants can improve some of the many pressing social issues (health, unemployment and poverty), and prevent degradation and native biodiversity loss via cultivation.

doi:10.1016/j.sajb.2010.02.071

A critical assessment of plant resource utilisation and park expansion in North-West

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In recent years many new park establishment and park expansion initiatives have been launched in North-West with a view to expand the existing conservation footprint. An unavoidable implication of expanding the conservation status of land is the limitation such as expansion places on access to resources, such as water, fuel, heritage, etc. The latter issues become even more serious and complex when dealing with tribal communities, since ownership of resources are shared.